

LABORATORY REPORT

October 3, 2012

Tim Pool
Aquaterra Environmental Solutions, Inc.
13 Executive Dr., Suite 1
Fairview Heights, IL 62208

RE: Cottonwood Hills 2012 Flare Sampling / 4733.11

Dear Tim:

Enclosed are the results of the samples submitted to our laboratory on October 2, 2012. For your reference, these analyses have been assigned our service request number P1204038.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA200007; The American Industrial Hygiene Association, Laboratory #101661; United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), Certificate No. L11-203; Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-12-3; Minnesota Department of Health, NELAP Certificate No. 362188; Washington State Department of Ecology, ELAP Lab ID: C946, State of Utah Department of Health, NELAP Certificate No. CA01527Z012-Z; Los Angeles Department of Building and Safety, Approval No: TA00001. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental



Digitally signed by Sue
Anderson
Date: 2012.10.03 17:01:41
-07'00'

Sue Anderson
Project Manager

Client: Aquaterra Environmental Solutions, Inc. Service Request No: P1204038
Project: Cottonwood Hills 2012 Flare Sampling / 4733.11

CASE NARRATIVE

The samples were received intact under chain of custody on October 2, 2012 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Sulfur Analysis

The samples were analyzed for twenty sulfur compounds per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of Columbia Analytical Services, Inc. dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to AALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

DETAIL SUMMARY REPORT

Client: Aquaterra Environmental Solutions, Inc.
Project ID: Cottonwood Hills 2012 Flare Sampling / 4733.11

Service Request: P1204038

Date Received: 10/2/2012
Time Received: 09:55

ASTM D5504-01 - Sulfur Bag

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	
CWH #1	P1204038-001	Air	10/1/2012	13:50	X
CWH #2	P1204038-002	Air	10/1/2012	13:55	X
CWH #3	P1204038-003	Air	10/1/2012	14:00	X



2655 Park Center Drive, Suite A

Simi Valley, California 93065

Phone (805) 526-7161

Fax (805) 526-7270

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

Requested Turnaround Time in Business Days (Surcharges) please circle:

1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No.

96024038

Company Name & Address (Reporting Information) Aquaterra Environmental Solutions Inc. 13 Executive Dr. Suite 1 Fairview Heights IL 62208						Project Name <i>Cottonwood Hills 2012 Flare Sampling</i>			Analysis Method		Comments e.g. Actual Preservative or specific instructions
Project Manager <i>Tim Pool</i>						Project Number <i>9733.11</i>					
Phone <i>618-628-2001</i>						Fax <i>618-628-2001</i>					
Email Address for Result Reporting <i>tpool@aquaterra-env.com</i>						P.O. # / Billing Information					
Sampler (Print & Sign) <i>Tim Pool</i>											
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume			
<i>CWH #1</i>	<i>(1)</i>	<i>10-1-12</i>	<i>1350</i>	<i>90675-54833</i>	<i>NA</i>				<i>X</i>		
<i>CWH #2</i>	<i>(2)</i>	<i>↓</i>	<i>1355</i>	<i>90675-54834</i>	<i>↓</i>				<i>X</i>		
<i>CWH #3</i>	<i>(3)</i>	<i>↓</i>	<i>1400</i>	<i>90675-54836</i>	<i>↓</i>				<i>X</i>		
Report Tier Levels - please select											
Tier I - Results (Default if not specified) <i>X</i>				Tier III (Results + QC & Calibration Summaries) _____				EDD required Yes / No			
Tier II (Results + QC Summaries) _____				Tier IV (Data Validation Package) 10% Surcharge _____				Type: _____			
Relinquished by: (Signature) <i>Tim Pool</i>				Date: <i>10-1-12</i>		Time: <i>1600</i>		Received by: (Signature) <i>[Signature]</i>		Date: <i>10/1/12</i>	
Relinquished by: (Signature) _____				Date: _____		Time: _____		Received by: (Signature) _____		Date: _____	
Cooler / Blank Temperature _____ °C											

4 of 12

WM00983

Sample Acceptance Check Form

Client: Aquaterra Environmental Solutions, Inc. Work order: P1204038
Project: Cottonwood Hills 2012 Flare Sampling / 4733.11
Sample(s) received on: 10/2/12 Date opened: 10/2/12 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

	Yes	No	N/A
1 Were sample containers properly marked with client sample ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Container(s) supplied by CAS ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Did sample containers arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Were chain-of-custody papers used and filled out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Did sample container labels and/or tags agree with custody papers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Was sample volume received adequate for analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Are samples within specified holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Was proper temperature (thermal preservation) of cooler at receipt adhered to?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 Was a trip blank received?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 Were custody seals on outside of cooler/Box?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of seal(s)? _____ Sealing Lid?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were signature and date included?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were custody seals on outside of sample container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of seal(s)? _____ Sealing Lid?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were signature and date included?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11 Do containers have appropriate preservation , according to method/SOP or Client specified information?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there a client indication that the submitted samples are pH preserved?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were VOA vials checked for presence/absence of air bubbles?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12 Tubes: Are the tubes capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Do they contain moisture?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13 Badges: Are the badges properly capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are dual bed badges separated and individually capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1204038-001.01	1 L Zefon Bag					
P1204038-002.01	1 L Zefon Bag					
P1204038-003.01	1 L Zefon Bag					

Explain any discrepancies: (include lab sample ID numbers): _____

RESULTS OF ANALYSIS

Page 1 of 1

Client: Aquaterra Environmental Solutions, Inc.
Client Sample ID: CWH #1
Client Project ID: Cottonwood Hills 2012 Flare Sampling / 4733.11

CAS Project ID: P1204038
 CAS Sample ID: P1204038-001

Test Code: ASTM D 5504-08
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Wade Henton
Sampling Media: 1 L Zefon Bag
Test Notes:

Date Collected: 10/1/12
Time Collected: 13:50
Date Received: 10/2/12
Date Analyzed: 10/2/12
Time Analyzed: 10:24, 10:57
Volume(s) Analyzed: 1.0 ml(s)
 0.010 ml(s)

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	850,000	700	610,000	500	D
463-58-1	Carbonyl Sulfide	5,300	12	2,200	5.0	
74-93-1	Methyl Mercaptan	20,000	9.8	10,000	5.0	
75-08-1	Ethyl Mercaptan	500	13	200	5.0	
75-18-3	Dimethyl Sulfide	24,000	13	9,500	5.0	
75-15-0	Carbon Disulfide	4,200	7.8	1,400	2.5	
75-33-2	Isopropyl Mercaptan	4,500	16	1,500	5.0	
75-66-1	tert-Butyl Mercaptan	1,300	18	350	5.0	
107-03-9	n-Propyl Mercaptan	270	16	88	5.0	
624-89-5	Ethyl Methyl Sulfide	200	16	64	5.0	
110-02-1	Thiophene	5,500	17	1,600	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	37	18	10	5.0	
109-79-5	n-Butyl Mercaptan	180	18	48	5.0	
624-92-0	Dimethyl Disulfide	570	9.6	150	2.5	
616-44-4	3-Methylthiophene	280	20	71	5.0	
110-01-0	Tetrahydrothiophene	81	18	22	5.0	
638-02-8	2,5-Dimethylthiophene	120	23	26	5.0	
872-55-9	2-Ethylthiophene	40	23	8.7	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Aquaterra Environmental Solutions, Inc.
Client Sample ID: CWH #2
Client Project ID: Cottonwood Hills 2012 Flare Sampling / 4733.11

CAS Project ID: P1204038
CAS Sample ID: P1204038-002

Test Code: ASTM D 5504-08
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Wade Henton
Sampling Media: 1 L Zefon Bag
Test Notes:

Date Collected: 10/1/12
Time Collected: 13:55
Date Received: 10/2/12
Date Analyzed: 10/2/12
Time Analyzed: 10:38, 10:56
Volume(s) Analyzed: 1.0 ml(s)
0.010 ml(s)

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	990,000	700	710,000	500	D
463-58-1	Carbonyl Sulfide	520	12	210	5.0	
74-93-1	Methyl Mercaptan	1,500	9.8	750	5.0	
75-08-1	Ethyl Mercaptan	41	13	16	5.0	
75-18-3	Dimethyl Sulfide	1,900	13	740	5.0	
75-15-0	Carbon Disulfide	330	7.8	110	2.5	
75-33-2	Isopropyl Mercaptan	360	16	120	5.0	
75-66-1	tert-Butyl Mercaptan	110	18	30	5.0	
107-03-9	n-Propyl Mercaptan	21	16	6.7	5.0	
624-89-5	Ethyl Methyl Sulfide	19	16	6.2	5.0	
110-02-1	Thiophene	400	17	110	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	47	9.6	12	2.5	
616-44-4	3-Methylthiophene	22	20	5.4	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Aquaterra Environmental Solutions, Inc.
Client Sample ID: CWH #3
Client Project ID: Cottonwood Hills 2012 Flare Sampling / 4733.11

CAS Project ID: P1204038
CAS Sample ID: P1204038-003

Test Code: ASTM D 5504-08
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Wade Henton
Sampling Media: 1 L Zefon Bag
Test Notes:

Date Collected: 10/1/12
Time Collected: 14:00
Date Received: 10/2/12
Date Analyzed: 10/2/12
Time Analyzed: 11:18, 11:38
Volume(s) Analyzed: 1.0 ml(s)
0.010 ml(s)

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	1,000,000	700	730,000	500	D
463-58-1	Carbonyl Sulfide	6,600	12	2,700	5.0	
74-93-1	Methyl Mercaptan	24,000	9.8	12,000	5.0	
75-08-1	Ethyl Mercaptan	590	13	230	5.0	
75-18-3	Dimethyl Sulfide	27,000	13	10,000	5.0	
75-15-0	Carbon Disulfide	4,600	7.8	1,500	2.5	
75-33-2	Isopropyl Mercaptan	5,200	16	1,700	5.0	
75-66-1	tert-Butyl Mercaptan	1,400	18	380	5.0	
107-03-9	n-Propyl Mercaptan	320	16	100	5.0	
624-89-5	Ethyl Methyl Sulfide	230	16	73	5.0	
110-02-1	Thiophene	6,100	17	1,800	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	33	18	9.1	5.0	
109-79-5	n-Butyl Mercaptan	180	18	48	5.0	
624-92-0	Dimethyl Disulfide	580	9.6	150	2.5	
616-44-4	3-Methylthiophene	300	20	75	5.0	
110-01-0	Tetrahydrothiophene	80	18	22	5.0	
638-02-8	2,5-Dimethylthiophene	160	23	34	5.0	
872-55-9	2-Ethylthiophene	49	23	11	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Aquaterra Environmental Solutions, Inc.
Client Sample ID: Method Blank
Client Project ID: Cottonwood Hills 2012 Flare Sampling / 4733.11

CAS Project ID: P1204038
CAS Sample ID: P121002-MB

Test Code: ASTM D 5504-08
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Wade Henton
Sampling Media: 1 L Zefon Bag
Test Notes:

Date Collected: NA
Time Collected: NA
Date Received: NA
Date Analyzed: 10/02/12
Time Analyzed: 07:56
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Aquaterra Environmental Solutions, Inc.
Client Sample ID: Method Blank
Client Project ID: Cottonwood Hills 2012 Flare Sampling / 4733.11

CAS Project ID: P1204038
 CAS Sample ID: P121002-MB

Test Code: ASTM D 5504-08
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Wade Henton
Sampling Media: 1 L Zefon Bag
Test Notes:

Date Collected: NA
Time Collected: NA
Date Received: NA
Date Analyzed: 10/02/12
Time Analyzed: 07:57
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: Aquaterra Environmental Solutions, Inc.
Client Sample ID: Lab Control Sample
Client Project ID: Cottonwood Hills 2012 Flare Sampling / 4733.11

CAS Project ID: P1204038
 CAS Sample ID: P121002-LCS

Test Code: ASTM D 5504-08
 Instrument ID: Agilent 6890A/GC13/SCD
 Analyst: Wade Henton
 Sampling Media: 1 L Zefon Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 10/02/12
 Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	CAS	Data Qualifier
					Acceptance Limits	
7783-06-4	Hydrogen Sulfide	2,380	2,730	115	51-141	
463-58-1	Carbonyl Sulfide	2,470	2,200	89	63-147	
74-93-1	Methyl Mercaptan	2,360	3,240	137	54-156	

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: Aquaterra Environmental Solutions, Inc.
Client Sample ID: Lab Control Sample
Client Project ID: Cottonwood Hills 2012 Flare Sampling / 4733.11

CAS Project ID: P1204038
 CAS Sample ID: P121002-LCS

Test Code: ASTM D 5504-08
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Wade Henton
 Sampling Media: 1 L Zefon Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 10/02/12
 Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	CAS	Data Qualifier
					Acceptance Limits	
7783-06-4	Hydrogen Sulfide	2,380	2,700	113	51-141	
463-58-1	Carbonyl Sulfide	2,470	2,310	94	63-147	
74-93-1	Methyl Mercaptan	2,360	3,210	136	54-156	